

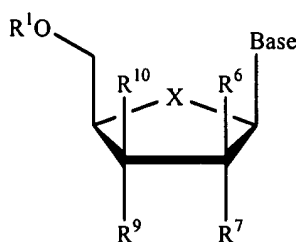
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

CLAIMS

Claims 89 (currently amended): A method for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a compound of the formula: ~~Formula XVII~~:



(XVII)

or a pharmaceutically acceptable salt thereof, wherein:

Base is a pyrrolopyrimidine;

R¹ and R² are independently H; phosphate; a stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; benzyl, wherein the phenyl group is optionally substituted with one or more substituents; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R¹ and R² are independently H or phosphate; R⁶ is hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chloro, bromo, fluoro, iodo, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂;

~~R⁷ and R⁹ are independently hydrogen,~~ is OR², hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, -C(O)O(alkyl), -C(O)O(lower alkyl), -O(acyl), -O(lower acyl), -O(alkyl), -O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl), -N(lower alkyl)₂, -N(acyl)₂;

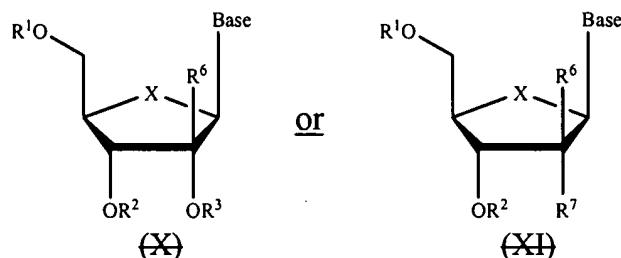
R^9 is hydrogen, OR^2 , hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, $-C(O)O(alkyl)$, $-C(O)O(lower\ alkyl)$, $-O(acyl)$, $-O(lower\ acyl)$, $-O(alkyl)$, $-O(lower\ alkyl)$, $-O(alkenyl)$, chlorine, bromine, iodine, NO_2 , NH_2 , $-NH(lower\ alkyl)$, $-NH(acyl)$, $-N(lower\ alkyl)_2$, $-N(acyl)_2$;

R^{10} is H, alkyl, chlorine, bromine or iodine;

~~alternatively, R^7 and R^9 , or R^7 and R^{10} can come together to form a bond; and~~

X is O, S, SO_2 or CH_2 .

Claim 130 (currently amended): The method of claim 89 for the treatment of a hepatitis C virus infection in a host, comprising administering an anti-virally effective amount of a compound of ~~Formula X or XI~~ the formula:



or a pharmaceutically acceptable salt or ester thereof, wherein:

Base is a pyrrolopyrimidine;

R^1 , R^2 and R^3 are independently H; phosphate or a stabilized phosphate prodrug; acyl; alkyl; sulfonate ester; or benzyl, wherein the phenyl group is optionally substituted; a lipid; an amino acid; a carbohydrate; a peptide; cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein R^1 , R^2 and R^3 are independently H or phosphate;

R^6 is ~~hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, $-C(O)O(alkyl)$, $-C(O)O(lower\ alkyl)$, $-O(acyl)$, $-O(lower\ acyl)$, $-O(alkyl)$, $-O(lower\ alkyl)$, $-O(alkenyl)$, chloro, bromo, fluoro, fluoro or iodo, NO_2 , NH_2 , $-NH(lower\ alkyl)$, $-NH(acyl)$, $-N(lower\ alkyl)_2$, or $-N(acyl)_2$;~~

R^7 is ~~hydrogen, OR^3 , hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br-vinyl, $-C(O)O(alkyl)$, $-C(O)O(lower\ alkyl)$, $-O(acyl)$, $-O(lower\ acyl)$, $-O(alkyl)$,~~

-O(lower alkyl), -O(alkenyl), chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl),
-NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂; and
X is O, S, SO₂ or CH₂.

Claim 131 (currently amended): The method of claim 89 for the treatment of a hepatitis C virus infection in a host, wherein, ~~in the compound of Formula XVII:~~

R¹⁰ is H, alkyl, chlorine, bromine or iodine;

~~R⁷ and R⁹ are independently hydrogen, is~~ OR², alkyl, ~~alkenyl, alkynyl, Br-vinyl,~~
~~O-alkenyl,~~ chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl), -NH(acyl),
-N(lower alkyl)₂, or -N(acyl)₂;

R⁹ is hydrogen, OR², alkyl, chlorine, bromine, iodine, NO₂, NH₂, -NH(lower alkyl),
-NH(acyl), -N(lower alkyl)₂, or -N(acyl)₂;

R² is H;

R⁶ is alkyl, chlorine, bromine or iodine;

~~alternatively, R⁷ and R⁹, or R⁸ and R⁹ can come together to form a bond;~~ and

X is O, S, SO₂ or CH₂.

Claim 132 (previously presented): The method of claim 89 wherein R¹ is hydrogen or phosphate.

Claim 133 (previously presented): The method of claim 89 wherein R² is hydrogen, acyl or alkyl.

Claim 134 (previously presented): The method of claim 89 wherein R⁶ is alkyl.

Claim 135 (currently amended): The method of claim 89 wherein R⁷ is OR² or hydroxy; and R⁹
~~are independently is~~ hydrogen, OR², or hydroxy.

Claim 136 (previously presented): The method of claim 89 wherein R⁷ is hydroxy.

Claim 137 (previously presented): The method of claim 89 wherein R⁹ is hydroxy.

Claim 138 (previously presented): The method of claim 89 wherein R⁷ and R⁹ are hydroxy.

Claim 139 (previously presented): The method of claim 89 wherein R¹⁰ is hydrogen.

Claim 140 (previously presented): The method of claim 89 wherein X is O.

Claim 141 (currently amended): The method of claim 89 wherein

R¹ is hydrogen or phosphate;

R² is hydrogen, acyl or alkyl;

R⁶ is alkyl;

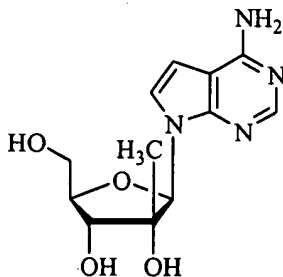
~~R⁷ and R⁹ are independently hydrogen,~~ is OR², or hydroxy;

R⁹ is hydrogen, OR², or hydroxy;

R¹⁰ is hydrogen; and

X is O.

Claim 142 (previously presented): The method of claim 89 for the treatment of a hepatitis C virus infection in a host, comprising administering an antivirally effective amount of a compound of the structure:



or a pharmaceutically acceptable salt or ester thereof.

Claim 143 (currently amended): The method of claim 89, 141 or 142 wherein the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.

Claim 144 (currently amended): The method of ~~any one of claims~~ claim 143, wherein the second anti-hepatitis C virus agent is selected from the group consisting of consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.

Claim 145 (previously presented): The method of claim 144, wherein the second anti-hepatitis C virus agent is interferon.

Claim 146 (previously presented): The method of claim 144, wherein the second anti-hepatitis C virus agent is a protease inhibitor.

Claim 147 (previously presented): The method of claim 144, wherein the second anti-hepatitis C virus agent is ribavirin.

Claim 148 (currently amended): The method of claim 89, 141 or 142 wherein the compound is in the form of a dosage unit.

Claim 149 (previously presented): The method of claim 148, wherein the dosage unit contains 50 to 1000 mg of said compound.

Claim 150 (previously presented): The method of claim 148, wherein said dosage unit is a tablet or capsule.

Claim 151 (previously presented): The method of claim 89, wherein the host is a human.

Claim 152 (currently amended): The method of claim 89, 141 or 142 wherein the compound is in substantially pure form.

Claim 153 (currently amended): The method claim 89, 141 or 142 wherein the compound is at least 90% by weight of the β -D-isomer.

Claim 154 (currently amended): The method of claim 89, 141 or 142 wherein the compound is at least 95% by weight of the β -D-isomer.

Claim 155 (new): The method of claim 130, wherein the host is a human.

Claim 156 (new): The method of claim 131, wherein the host is a human.

Claim 157 (new): The method of any one of claims 132-140, wherein the host is a human.

Claim 158 (new): The method of claim 141, wherein the host is a human.

Claim 159 (new): The method of claim 142, wherein the host is a human.

Claim 160 (new): The method of claim 143, wherein the host is a human.

Claim 161 (new): The method of claim 144, wherein the host is a human.

Claim 162 (new): The method of claim 145, wherein the host is a human.

Claim 163 (new): The method of claim 146, wherein the host is a human.

Claim 164 (new): The method of claim 147, wherein the host is a human.

Claim 165 (new): The method of claim 148, wherein the host is a human.

Claim 166 (new): The method of claims 149 wherein the host is a human.

Claim 167 (new): The method of claim 150, wherein the host is a human.

Claim 168 (new): The method of claim 152, wherein the host is a human.

Claim 169 (new): The method of claim 153, wherein the host is a human.

Claim 170 (new): The method of claim 154, wherein the host is a human.

Claim 171 (new): The method of claim 130, wherein X is O.

Claim 172 (new): The method of claim 132, wherein X is O.

Claim 173 (new): The method of claim 134, wherein X is O.

Claim 174 (new): The method of any one of claims 133, 135-139 wherein X is O.

Claim 175 (new): The method of claim 89, wherein X is O, and the method comprises administering the compound or a pharmaceutically acceptable salt or ester thereof in combination or alternation with a second anti-hepatitis C virus agent.

Claim 176 (new): The method of claim 175, wherein the second anti-hepatitis C virus agent is selected from the group consisting of consisting of interferon, ribavirin, a protease inhibitor, a thiazolidine derivative, a polymerase inhibitor, and a helicase inhibitor.

Claim 177 (new): The method of claim 176, wherein the host is a human.